## **Hepatitis D**

Hepatitis D is not a reportable condition in Louisiana. However, since hepatitis D is always accompanied by hepatitis B - which is reportable, a report of hepatitis D should be handled as a hepatitis B report.

The hepatitis Delta virus (HDV) is a defective single stranded RNA virus that requires the helper function of hepatitis B virus (HBV) to replicate. HDV requires HBV for synthesis of an envelope protein composed of hepatitis B surface antigen (HBsAg), which is used to encapsulate the HDV genome.

HDV can be acquired as either a co-infection with HBV or as a super-infection of persons with chronic HBV. The mode of transmission is similar to HBV; blood and body fluids are the most important modes. In the United States, HDV infection is more common among drug abusers, persons with hemophilia, and persons immigrating from endemic areas.

HDV is important because of its ability to convert an asymptomatic or mild chronic HBV infection into a fulminant or more severe or rapidly progressive disease. Onset is usually abrupt, with signs and symptoms resembling those of hepatitis B; HDV can be misdiagnosed as an exacerbation of chronic hepatitis B. In long-term studies of chronic HBV carriers with HDV super-infection, 70% to 80% have developed evidence of chronic liver disease with cirrhosis compared with 15% to 30% of patients with chronic HBV alone.

## **Hospitalization Surveillance**

Hospitalization surveillance is based on the Louisiana Inpatient Hospital Discharge Data (LaHIDD). In 1997, the Louisiana legislature mandated the reporting of hospital discharge data. LaHIDD serves as the state registry containing hospital discharge data submitted to the Louisiana Department of Health (LDH). The Office of Public Health (OPH) is responsible for making the data available to OPH sections as needed. The data is available with a delay of two years. The Infectious Disease Epidemiology Section uses these data sets for the surveillance of infectious diseases in hospitals. LaHIDD data sets contain demographic information (names, gender, age, date of birth, address, admit diagnosis, discharge diagnoses (main plus eight more diagnoses), procedures (main plus five), charges, length of stay and hospital name. The diagnoses and procedures are coded with ICD-9 codes. Repeat hospitalizations are not included. The data are based on the years 1999 to 2014.

Records of patients with Hepatitis D were extracted using the following ICD9 codes whether in the main diagnosis or in the eight additional secondary diagnoses:

Code	Disease
070.21	Viral Hepatitis B with Hepatic Coma with Hepatitis Delta
070.31	Viral Hepatitis B without mention of Hepatic Coma with Hepatitis Delta
070.42	Other specified viral hepatitis with hepatic coma, Hepatitis Delta without mention
	of active Hepatitis B Disease
070.52	Other specified viral hepatitis without mention of hepatic coma, Hepatitis Delta
	without mention of active Hepatitis B Disease

There were at total of 145 Hepatitis D related hospitalizations from 1999 to 2014. The mean number of hospitalizations was nine per year (Figure 1).

90 5.0 80 Number of Hospitalizations ■Number of Hospitalization Rate per 100,000 Population 4.0 70 Rate per 100,000 Population 60 3.0 50 40 2.0 30 20 1.0 10 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 Year

Figure 1: Hepatitis D Hospitalizations – Louisiana, 1999-2014

The highest number of hospitalizations were among the 25 to 44 year-old age group and the 45 to 64 year-old age group. There were more hospitalizations among males than among females (Figure 2).

Figure 2: Hepatitis D Hospitalizations by Gender and Age – Louisiana, 1999-2014